

FIG. 1

OBLON, SPIVAK, ET AL

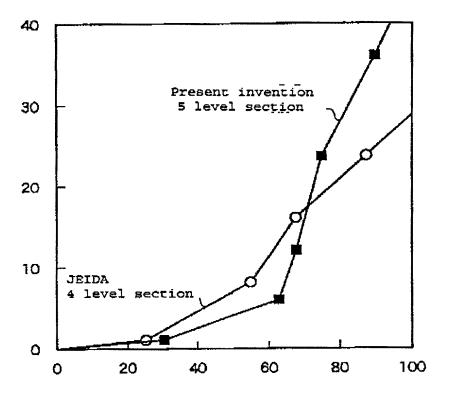
DOCKET #: 202686USZTTC

INV: Katsumi KANEHIRA, et al.

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Atmospheric environment	: environm	ent			11		П		ΙΛ		^	
zone												
Environmental factors	tal factors		Measured	Measured Evaluation	Measured	Measured Evaluation	ıred	Evaluation	Measured	Evaluation   Measured   Evaluation	Measured Evaluation	Evaluation
			value	point	value	point	value	point	value	point	value	point
Temperature (°C)	(C) (C)	Ą	≥20		≤25	2	≤30	4	≤35	æ	>35	12
Relative humidity	nidity	В	09≅	_	≥ 65	9	≤70	12	580	24	>80	36
(%RH)												
Corrosive SO <sub>3</sub>	SO <sub>3</sub> SO <sub>2</sub> C1	CI	≤0.02	1	≥0.05	4	≤0.2	8	≤0.5	16	>0.5	24
gas	H,S	C2	≤ 0.02	1	≤0.05	9	≤0.2	12	≥0.5	24	>0.5	36
<u></u>	NO2	ຍ	≤ 0.02	_	≤0.05	3	≤0.2	9	≤0.5	12	>0.5	18
	CJ.	C4	≥ 0.02	1	≤ 0.05	7	≤0.2	14	≥0.5	28	>0.5	42
<u>1                                    </u>	NH <sub>3</sub>	Ŋ	≤0.02	1	≤0.1	3	≤1.0	9	≤10	12	>10	18
Sea salt	Sea salt		≤0.01	1	≤ 0.03	5	≤ 0,1	10	≤0.3	20	>0.3	30
particle	particle				•							
	(mdd)					•						
	Distance	Ω	>2.0	•	≥1.5		≥1.0		≥0.5		<0.5	
	from											
	coast					,						
	(km)											

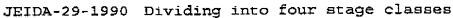
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Humidity (%RH)

FIG. 3

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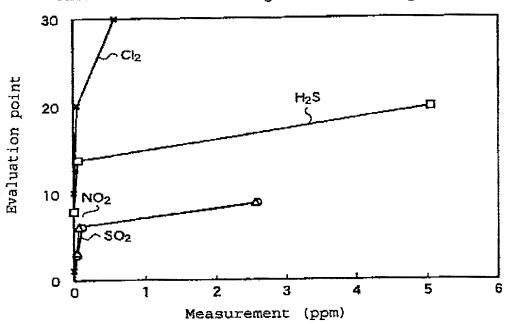


FIG. 4 A

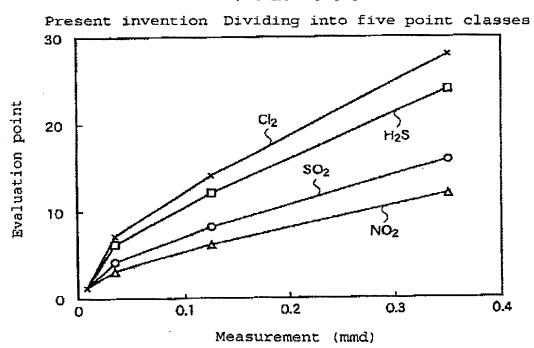


FIG. 4B

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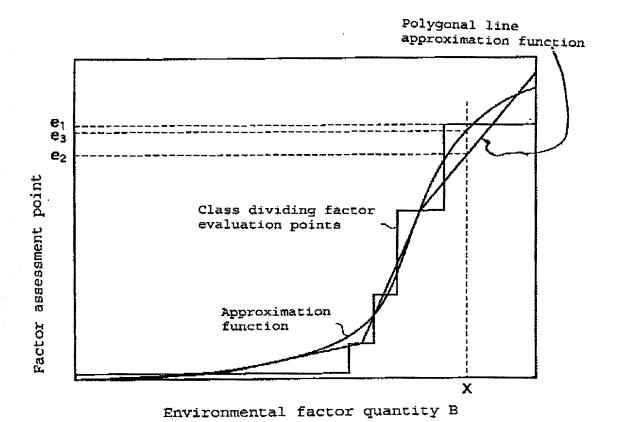
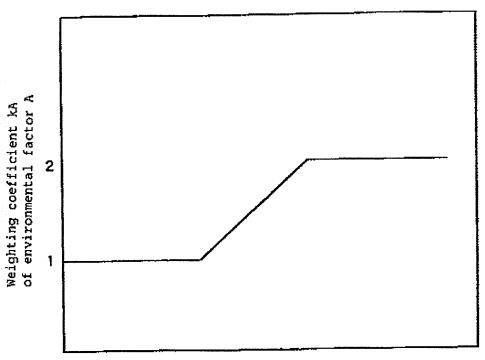
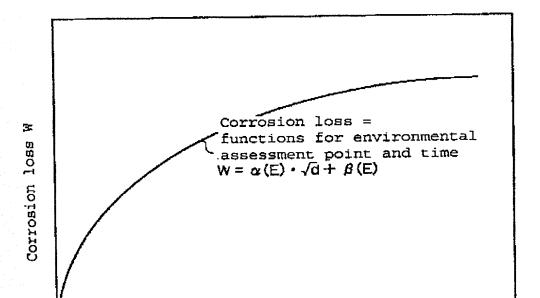


FIG. 5

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Quantity X of environmental factor B FIG. 6



Time d

FIG. 7

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Maximum function value of corrosion loss of metallic material prediction function represented by function for environmental assessment points and time

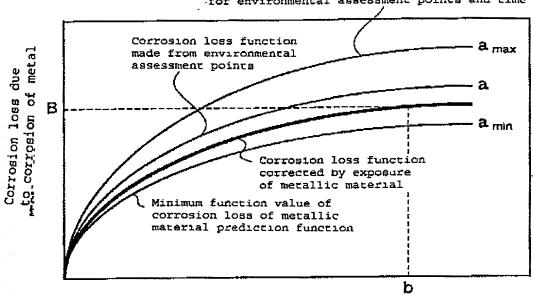


FIG. 8

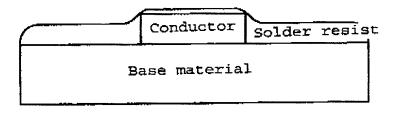


FIG. 9

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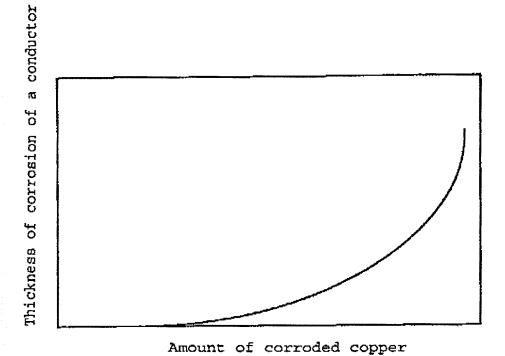


FIG. 10A

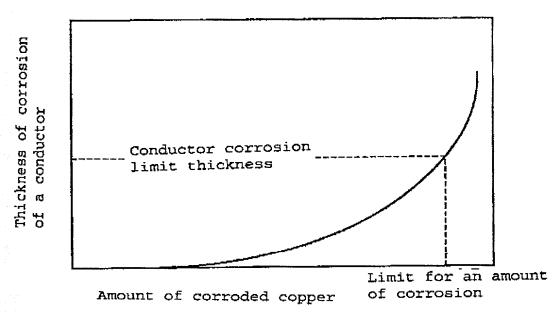
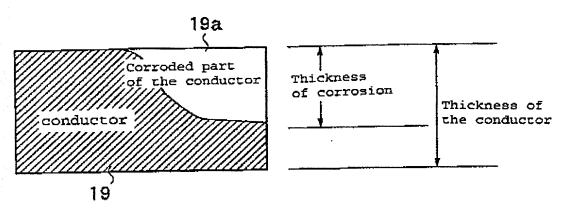


FIG. 10B

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Corrosion loss rate = (thickness of corrosion/thickness of the conductor) ×100

FIG. 11

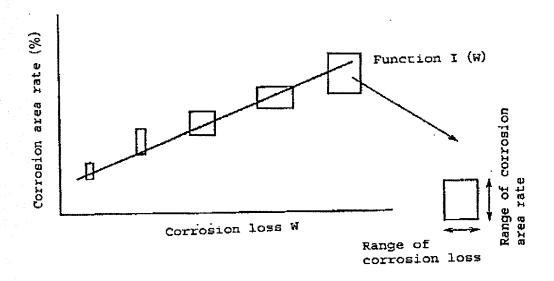


FIG. 12

to been take in the pool of the same

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Correlation function I(W	CI 1982 T Inc. Epoxy PSG I <sub>1</sub> (W)	I <sub>2</sub> (W)	I <sub>3</sub> (W)	:
Other				:
Chip protective film	PSG	None	NiS	;
Sealing resin	Epoxy blend	Epoxy blend	Polyimide blend	:
Manufacturer	T inc.	N Inc.	H Inc.	÷
Year	1982	C2 1979	C3 1992	:
type	ວ	ខ	3	:

FIG. 13

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							_
Change of time se Correlation function	area rafe and faults	$U_1 = m_1(t), F_1 = n_1(u)$		$U_2 = m_2(1), F_2 = n_2(u)$		$U_3 = m_3(1), F_3 = n_3(0)$	
Other							
Chip protective Other		PSG		None		SiN	
Sealing resin		Epoxy	blend	Epoxy	blend	Polyimide	blend
IC Year Manufacturer type		T Inc.		N Inc.		H Inc.	
Year		1C1 1982		102 1979		IC3 1992	•
JC type		1C1		152		133	

FIG. 14

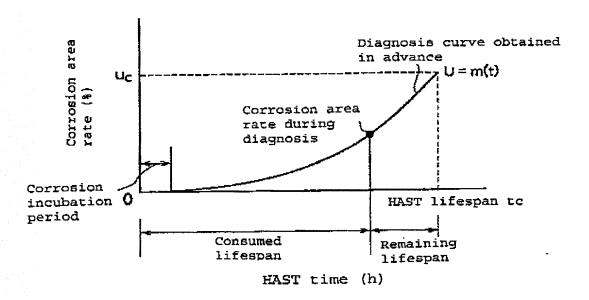
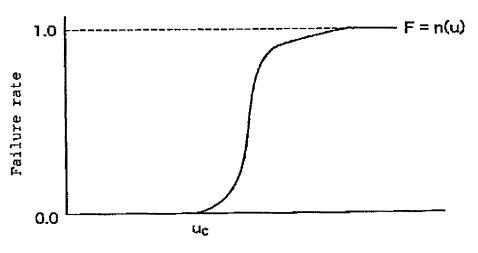


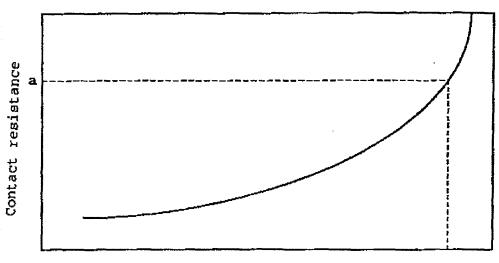
FIG. 15



Corrosion area average rate (%)

FIG. 16

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Film thickness

FIG. 17

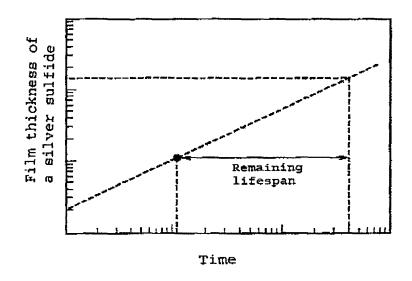


FIG. 18

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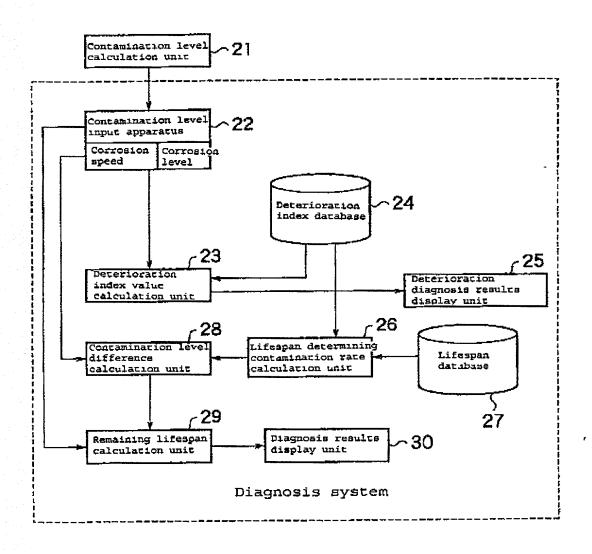


FIG. 19

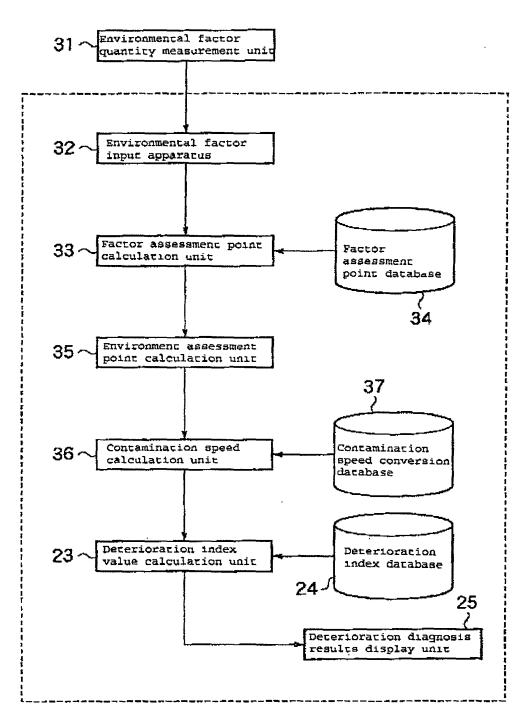


FIG. 20

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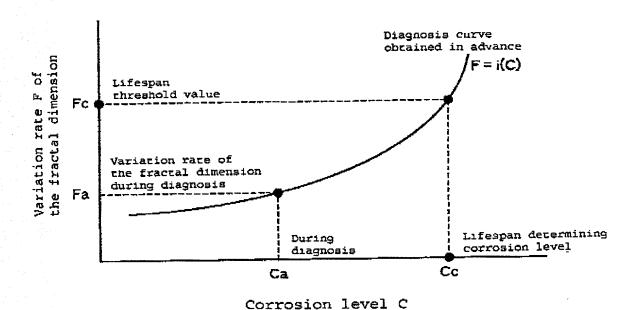
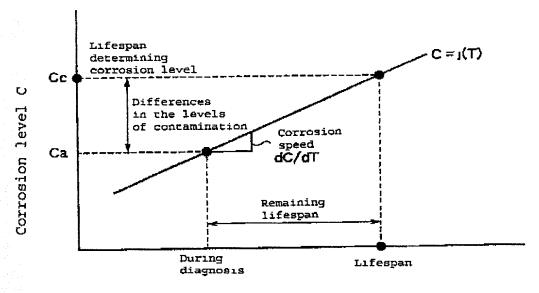


FIG. 21



Time of usage T

FIG. 22

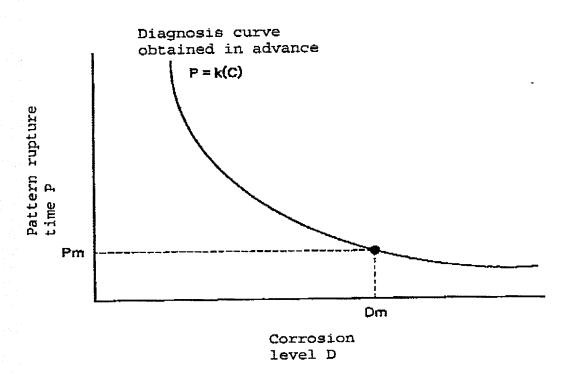


FIG. 23

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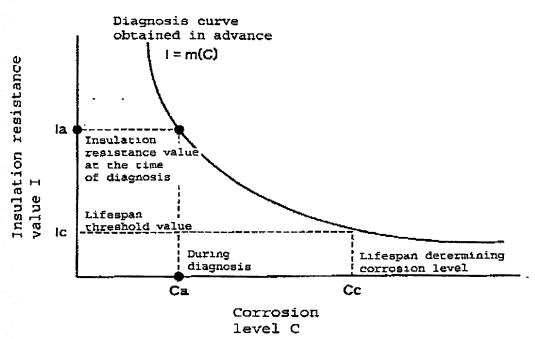
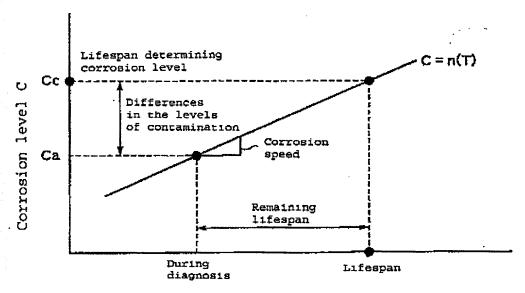


FIG. 24



Time of usage T

FIG. 25